



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/643,097 | 08/18/2003 | Warran B. Lineton | 71024-023 | 3347 |
| 27305 | 7590 | 12/22/2004 | EXAMINER | |
| HOWARD & HOWARD ATTORNEYS, P.C. THE PINEHURST OFFICE CENTER, SUITE #101 39400 WOODWARD AVENUE BLOOMFIELD HILLS, MI 48304-5151 | | | BECK, DAVID THOMAS | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1732 | |
| DATE MAILED: 12/22/2004 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/643,097 | LINETON, WARRAN B. | |
| | Examiner | Art Unit | |
| | David T. Beck | 1732 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 18 August 2003.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-9 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-9 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 18 August 2004 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-9 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 6,676,880.

Although the conflicting claims are not identical, they are not patentably distinct from each other.

Claims 1-9 of the application are obvious over claims 1-7 of the patent because it would be obvious to make a product other than a seal by packing the material into any extrudable shape and to use any type of wave energy including microwave and further obvious to add or remove various components of the process claimed by the patent including cutting, drawing a vacuum, preheating, cooling, forming a tube, and using microwaves to sinter. Also, claims 1-7 of the patent recite the various steps that comprise claim 1 of the application. It would be readily apparent to one of ordinary skill in the art that the various steps could be combined in any order or manner.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams et al (4,375,441) in view of Hori et al (6,270,707).

With regard to claim 1, Adams et al discloses a method of fabricating porous polymeric articles (abstract) comprising: feeding the mixture into a compaction zone to at least partially compact and shape the mixture (column 9, lines 25-44), providing a continuous flow of the mixture from the compaction zone to a heating zone (column 9, lines 44-47) and heating and sintering the mixture within the heating zone by exciting the susceptor material by application of wave energy (column 9, lines 44-47 and column 3, lines 12-14) but does not expressly disclose preparing a mixture of PTFE resin powder and a susceptor material. Hori et al discloses preparing a mixture of PTFE resin powder and a susceptor material (column 1, lines 18-22, graphite is a susceptor material). Hori et al and Adams et al are analogous art because they both deal with the technical challenge of compacting and shaping polymeric material through ram extrusion with subsequent steps of sintering to form a polymer article. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the starting materials of Hori et al in the process of Adams et al. The motivation to do so

would have been to create a PTFE sheet with good mechanical strength and conductivity (Hori et al, column 5, lines 37–40).

With regard to claim 5, Adams et al teaches cutting the PTFE material while the mixture is at a temperature below a sintering temperature within the heating zone but above ambient temperature (column 9, lines 62-67, Adams et al states that the distance between the oven and takeoff permits adequate cooling, which indicates a range between ambient temperature and sintering temperature).

With regard to claim 6, Hori et al teaches that the mixture is compacted into a generally tubular form (Figure 2, number 32).

With regard to claim 7, Adams et al teaches that the mixture is heated by microwave energy (column 3, lines 12-14).

With regard to claim 8, Adams et al teaches a method of fabricating porous polymeric articles, comprising: compacting the mixture (column 9, lines 25-44); and sintering the mixture by exciting the susceptor material with microwave energy(column 9, lines 44-47 and column 3, lines 12-14). Hori et al discloses preparing a mixture of PTFE resin powder and a susceptor material (column 1, lines 18-22).

5. Claims 2-4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams et al (4,375,441) in view of Hori et al (6,270,707) and Eucker et al (5,227,105).

With regard to claim 2, Adams et al in view of Hori et al teaches the invention of claim 1, but does not teach drawing a vacuum on the mixture within the heating zone to extract air from the mixture. Eucker et al teaches drawing a vacuum on the mixture

within the heating zone to extract air from the mixture (column 3, lines 8-10 and column 3, lines 53-57). Eucker et al, Adams et al and Hori et al are analogous art because they all deal with the technical challenge of shaping particulate matter into a form through ram extrusion with subsequent sintering steps to create a finished article. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to draw a vacuum on the heating steps as taught by Eucker et al in the process taught by Adams et al. The motivation to do so would have been to remove volatiles from inside the tube (Eucker et al, column 3, lines 53-57).

With regard to claim 3, Adams et al teaches that the heating zone has an initial stage for preheating and finishing compaction of the mixture prior to sintering the mixture (column 10, lines 40-45).

With regard to claim 4, Adams et al teaches passing the sintered mixture through a cooling zone following the heating zone (column 9, lines 64-68).

With regard to claim 9, Eucker et al teaches drawing a vacuum on the mixture during the sintering step to extract air from the mixture (column 3, lines 8-10 and column 3, lines 53-57).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David T. Beck whose telephone number is 571-272-2942. The examiner can normally be reached on Monday - Friday, 8AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on 517-272-1196. The fax phone

Art Unit: 1732

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DTB
December 20, 2004

DTB



MICHAEL P. COLAIANNI
SUPERVISORY PATENT EXAMINER